

Glossary

Administrative Consent Order (ACO): A binding legal agreement between a government agency and a responsible party. It is an order voluntarily entered into by the responsible party that specifies actions or obligations of the responsible party, which may include site remediation.

Air Stripping: A process whereby volatile organic compounds are removed from contaminated material, such as ground water, by forcing a stream of air through the material in a pressurized vessel. The contaminants are evaporated into the air stream. The air may be further treated before it is released into the atmosphere.

Aquifer: An underground layer of rock, sand, or gravel capable of storing water within cracks and pore spaces, or between grains. When water contained within an aquifer is of sufficient quantity and quality, it can be tapped and used for drinking or other purposes. The water contained in the aquifer is called ground water.

Attenuation: The process by which a compound is reduced in concentration over time through adsorption, degradation, dilution and/or transformation, usually by natural processes.

Authorization: Monies set aside from a specific revenue fund, e.g., 1986 Bond Fund, to cover specific remedial work at a contaminated site, e.g., a Remedial Investigation.

Cap: A layer of material, such as clay or a synthetic material, used to prevent rain water from penetrating and spreading contaminated materials. The surface of the cap is generally mounded or sloped so water will drain off.

CERCLA/SARA: The federal Comprehensive Environmental Response, Compensation and Liability Act, passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA). The acts created a special tax that goes into a trust fund, commonly known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites. Under the program, USEPA can either pay for site cleanup when responsible parties cannot be located or are unwilling or unable to perform the work, or take legal action to force parties responsible for site contamination to clean up the site or pay back the government for the cost of the cleanup.

Classification Exception Area (CEA): This designation must be established as part of an approved remedy whenever standards applicable to ground water in a specific area, which vary throughout the state, are not or will not be met for the term of the remediation. The intent of a CEA is to ensure that the uses of a designated aquifer in a specific area are restricted until standards are achieved.

Cleanup: Actions taken to deal with a release or threatened release of hazardous substances that could affect public health or the environment. The term is often used to describe a Remedial Action or Interim Remedial Measure performed at a contaminated site.

Construction: See Remedial Action.

Containment: The process of enclosing or containing hazardous substances in a structure, typically in ponds and lagoons, to prevent the migration of contaminants into the environment.

Decision Document: A document prepared at the conclusion of the remedial investigation and feasibility study or remedial alternatives analysis to formalize the selection of a remedial alternative for non-Superfund sites.

Declaration of Environmental Restriction/Deed Notice: Properties must be restricted when contamination will remain above the residential soil cleanup criteria. A Deed Notice requires a property owner's concurrence and documents the location and concentration of all contaminants and how they must be controlled or maintained and monitored, if applicable.

Directive: A document issued by NJDEP to notify the recipient that NJDEP has determined that it is necessary to remove or arrange for the removal of a discharge of hazardous substances and that NJDEP believes the recipient is a person who may be subject to liability for the discharge of a hazardous substance.

Downgradient: A downward hydrologic slope that causes ground water to move toward lower elevations. Wells downgradient of a contaminated ground water source are prone to receiving pollutants.

Extraction Well: A well from which contaminated ground water or vapors are pumped.

Feasibility Study (FS): A feasibility study evaluates alternative remedial actions from a technical, environmental and cost perspective, recommending the most effective remedy for adequate protection of human health and the environment, and preparation of a conceptual design, cost estimates and a preliminary implementation schedule.

Focused Feasibility Study: A limited feasibility study that is performed on a certain aspect of site remediation and/or when more than one remedial measure is considered technically viable for the immediate control of a threat.

Ground Water Impact Area: An area determined likely to be impacted within three years by the spread of ground water contamination previously detected through potable and/or monitor well sampling.

Hazardous Substance: Any material that poses a threat to human health and/or the environment. Typical hazardous substances are toxic, corrosive, ignitable, explosive or chemically reactive.

IEC (Immediate Environmental Concern): A condition that exists at a contaminated site posing an acute, direct threat to human health.

Incineration: A treatment technology involving destruction of waste by controlled burning at high temperatures.

Inorganic: Compounds that are not hydrocarbons or their derivatives.

Interim Remedial Measure (IRM): Terminology for site stabilization. An IRM may include a removal, a pump and treat ground water system, or a vapor extraction soil gas system among other possible actions.

ISRA: Industrial Site Recovery Act, formerly known as ECRA, the state Environmental Cleanup Responsibility Act of 1983, requires the owner/operator to clean up any environmental contamination that may be on-site prior to the transfer or sale of applicable industrial properties.

Lagoon: A shallow pond where sunlight, bacterial action and oxygen work to purify waste water.

Landfill Gas: Methane gas formed by decomposition of materials in a landfill.

Leachate: The liquid that trickles through or drains from waste, carrying soluble components from the waste, often associated with landfills.

Memorandum of Agreement (MOA): A written agreement between NJDEP and one or more person(s) concerning NJDEP's oversight of remediation. It does not require financial assurances or stipulated penalties.

Metals: Metallic elements with high atomic weights, such as mercury, chromium, cadmium, arsenic and lead. They can damage living things at low concentrations and tend to accumulate in the food chain.

Migration: The movement of contaminants, water, or other liquids through porous and permeable rock.

Monitor Well: A well installed under strict design specifications that, when sampled, will reveal hydrogeologic data at its point of installation. Monitor wells are installed at predetermined locations, usually in groups, to gain knowledge of site conditions including: extent and type of ground water contamination, soil types, depth to ground water and direction of ground water flow.

National Priorities List (NPL): A list of sites based upon NJDEP's and USEPA's regional submissions of candidate sites that are determined by the federal government to have the highest priority based upon a hazard ranking system. A site listed on the NPL is eligible for federal funding under CERCLA. Published by the USEPA, the NPL is updated periodically. Sites on the NPL are commonly called Superfund sites.

NFA (No Further Action): A determination by the NJDEP that, based upon evaluation of the historical uses and/or investigation of a site or subsite, there are no contaminants present, or that any discharged contaminants that were present at the site or subsite have been remediated in accordance with applicable regulations.

Operable Unit (OU): A portion of an overall site remediation (e.g., a landfill cap or ground water extraction and treatment system). A number of OUs may be implemented during the course of a site cleanup. (See subsite).

Operation and Maintenance (O&M): Activities conducted at a site usually after a Remedial Action or other Interim Remedial Measure has been completed to ensure that the action is effective and any treatment systems in place are operating properly, including continued monitoring of site conditions.

Pending: A site identified as pending assignment to the Division of Publicly Funded Site Remediation will eventually be scheduled for remediation with public funds, by NJDEP, based on the threat to human health and the environment posed by the site in relation to other sites awaiting publicly funded action. A site currently designated for remediation with public monies can be removed from this list if a responsible party or other interested person(s) commits to remediate the site pursuant to a Memorandum of Agreement or another oversight program in the interim.

POET (Point-of-Entry Treatment): A home water filtration system used to remove contaminants from private potable wells to allow unrestricted use.

PCBs (Polychlorinated Biphenyl): A group of toxic, persistent chemicals used in transformers and capacitors for insulating purposes, and in gas pipeline systems as a lubricant. Further sale of new use was banned by law in 1979.

Potable Water: Water that is safe for drinking and cooking from either a private well or a public supply provided through a water line.

Potentially Responsible Parties (PRPs): Parties who may have contributed to the contamination at a site and may be liable for costs of response actions. Parties are considered PRPs until they admit liability or a court makes a determination of liability. This means that PRPs may sign a consent decree or administrative order to participate in site cleanup activity without admitting liability.

Record of Decision (ROD): A formal record documenting the reasons and process of selecting a federal Superfund-financed remedy for a Superfund site. The ROD is based on information and technical analysis generated during the Remedial Investigation and Feasibility Study and consideration of public comments and community concerns.

Reinjection: Recharge to the ground of water that has been extracted and treated to remove contaminants.

Remedial Action (RA): The physical action consistent with the selected remedy to correct a release or threatened release of a hazardous substance into the environment. The term, often referred to as a cleanup action or construction project, includes but is not limited to: confinement, dredging, neutralization, recycling, removal, reuse, storage or treatment of hazardous substances. Other actions include providing alternate water supplies.

Remedial Action Selection Report (RASR): For non-Superfund sites, an evaluation of alternative remedial actions from a technical, environmental and cost perspective, recommending the most effective remedy for adequate protection of human health and the environment. Includes preparation of a conceptual design, cost estimates and a preliminary implementation schedule. A RASR is similar to the Feasibility Study conducted for sites in the Superfund program.

Remedial Design (RD): Normally following a feasibility study or remedial alternatives analysis, the engineering specifications developed to implement the selected remedy.

Remedial Investigation (RI): The Remedial Investigation entails gathering the data necessary to determine the nature and extent of problems at the site, establishing the remedial response criteria and identifying remedial action alternatives.

Responsible Party: Any person, company or other entity who has discharged a hazardous substance or is in any way responsible for a hazardous substance that has been discharged or which NJDEP is removing pursuant to the New Jersey Spill Compensation and Control Act (see Spill Compensation Fund) or any person who is responsible for a release of hazardous substances under CERCLA. The Spill Act has a broader definition of responsible parties than CERCLA, a federal act dealing with site remediation.

Slurry Wall: A subsurface wall of low permeability constructed to control or reduce ground water flow near a polluting waste source in order to capture or contain resulting contamination.

Spill Compensation Fund: The Spill Compensation Fund was created in 1976 with enactment of the state Spill Compensation and Control Act and became effective on April 1, 1977. It provides compensation to qualified individuals and businesses that have suffered damages as a result of a discharge of hazardous substances for which they were not responsible.

Subsite: A contaminated area within a larger contaminated site that can be addressed separately due to its distinctive characteristics, such as its physical features or the nature of the contamination present. Also, a subsite can represent the remaining work that encompasses an entire site after more immediate environmental concerns are handled at the location. (See Operable Unit).

Superfund: The common name for the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) enacted by Congress in December 1980 and amended in October 1986 by the Superfund Amendments and Reauthorization Act (SARA). CERCLA authorized USEPA to provide long-term remedies at hazardous waste sites and established a fund of special taxes and general revenues to clean up these sites.

Superfund Cooperative Agreement: An agreement whereby USEPA transfers funds and other resources to a state for the accomplishment of certain remedial activities at sites on the National Priorities List (Superfund sites) as authorized by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Superfund State Contract: An agreement whereby the State agrees to act in a subordinated support capacity to USEPA for the remediation of sites on the National Priorities List (Superfund sites) as authorized by CERCLA.

Underground Storage Tank (UST): A tank located all or partially under ground that is designed to hold gasoline or other petroleum products or chemical solutions.

Volatile Organic Compound (VOC): VOCs are organic (carbon-containing) compounds that evaporate readily at room temperature. These compounds are used as solvents, degreasers, paints, thinners and fuels. Due to their low water solubilities, environmental persistence and widespread industrial use, they are commonly found in soil and ground water.

Water Line: A pipe used to convey water from a public water supply.